

NARRATIVE REPORT FOR
SULLYS HILL NATIONAL GAME PRESERVE
AND
EASEMENT REFUGES OF DISTRICT NO. 2
CALENDAR YEAR 1966

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF SPORT FISHERIES AND WILDLIFE
FISH AND WILDLIFE SERVICE

SULLYS HILL NATIONAL GAME PRESERVE
FORT TOTTEN, NORTH DAKOTA

John K. Bauman (Jan. 1 - Aug. 27)	Refuge Manager
David L. Gilbert (E.O.D. Sep. 25)	Refuge Manager
Irvin A. Nelson	Maintenanceman
Louis E. Ziemann (May 2 - Aug. 8)	Painter
Roger L. Moen (Jun. 5 - Sep. 24)	Laborer

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SULLYS HILL NATIONAL WILDLIFE REFUGE

BENSON COUNTY, NORTH DAKOTA

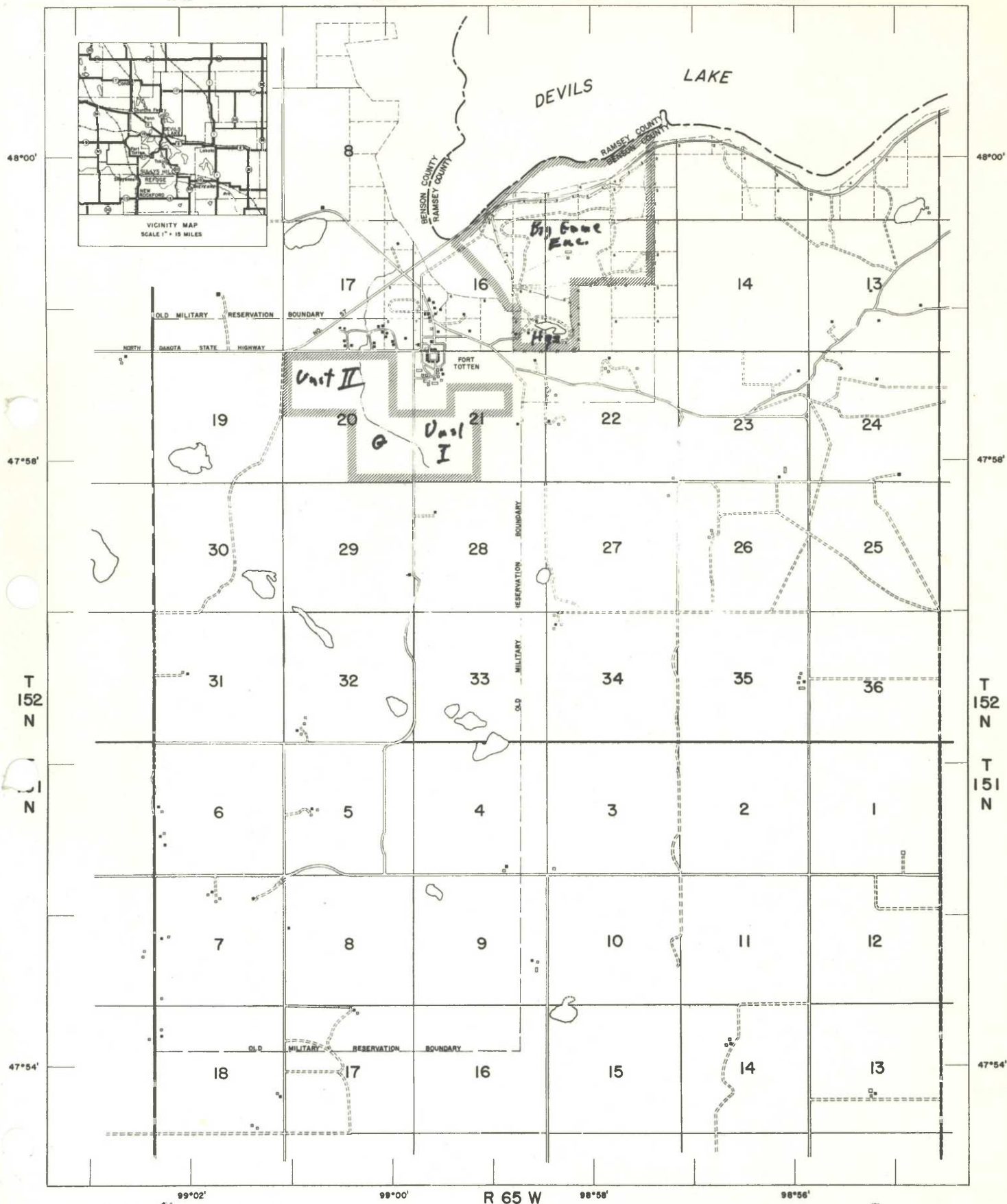
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DEPARTMENT OF THE INTERIOR
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FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE
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COMPILED IN THE BRANCH OF ENGINEERING
FROM SURVEYS BY G.L.O. AND B.S.F. & W.

MINNEAPOLIS, MINNESOTA

DECEMBER, 1959

FIFTH PRINCIPAL MERIDIAN



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7	8	9	10	11	12
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TOWNSHIP
DIAGRAM



MEAN
DECLINATION
1955



SULLYS HILL NATIONAL GAME PRESERVE

Sullys Hill National Game Preserve is one of four big-game areas, administered by the United States Fish and Wildlife Service, where native American bison or buffalo can be seen under natural conditions. This 994-acre preserve with its 700-acre big-game enclosure is located about 15 miles south of Devils Lake, North Dakota, on State Highway 57; or about 1 mile northeast of Fort Totten in the heart of the Sioux Indian Reservation. This picturesque, rolling tract of land with its timber and grassy meadows is a sanctuary for native wildlife so abundant on the Great Plains not so many years ago.

Wildlife

Buffalo: Unlike the darker, less humped, eastern bison, the last of which were killed about 1800, remnants of the vast herds of our Plains bison were preserved for posterity on the game preserves and parks of our Nation. A small herd--20 at present--of these magnificent animals may be seen within the enclosure at Sullys Hill. Those that you see here represent only a remnant of an estimated 60 million that roamed the Great Plains a few decades ago.

Elk: No one knows when the last wild, native elk was seen in this area; however, an occasional old antler is still found. Sullys Hill maintains a herd of between 20 and 30 of these animals, called "Wapiti" by the Indian hunter.

White-tailed Deer: There are over 40 deer in the enclosure at Sullys Hill. Although now common in North Dakota, it must be remembered that at the turn of the century they were all but extinct in this area.

Other Wildlife: Canada geese breed in semicaptivity on Sweetwater Lake in the Sullys Hill picnic area. During spring and fall their numbers are increased by migrant geese and other waterfowl that use the marsh and shorelines of the preserve. Upland game birds such as pheasants and sharp-tailed grouse are present, as well as many



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seed-eating and insectivorous birds. Muskrats, weasels, raccoons, rabbits, skunks, fox and gray squirrels, gophers, and other native mammals are represented.

Surplus big-game animals are given to zoos or parks or are otherwise disposed of annually to keep herds within the carrying capacity of the range. New blood is periodically introduced by transfers of bulls from other areas.

Recreational Facilities

About 60 acres of the preserve, surrounding Sweetwater Lake, have been set aside for use as picnic grounds. Shelters, fireplaces, drinking water, playground equipment, and toilet facilities are available. Tours through the big-game enclosure can be arranged by contacting the refuge manager. Molesting wildlife and plants, camping, firearms of any kind, and unleashed dogs are prohibited.

History

- 1839 Devils Lake area surveyed by Nicolette and Fremont.
- 1865 General Alfred Sully led expedition against Sioux in this area. (It was at this time that Sullys Hill received its name. A column of the 3rd Illinois Volunteer Cavalry was ordered to the Devils Lake region to join General Sully's forces. Although the two columns of soldiers failed to effect a junction, the Illinois group camped at the base of the hill and gave it its present name.)
- 1867 Fort Totten established.
- 1904 Presidential proclamation declares Sullys Hill a National Park.
- 1914 Congress establishes big-game preserve to be administered jointly by Departments of Agriculture and Interior.
- 1917 Fifteen elk received from Yellowstone Park. Four deer from Fargo, Agricultural Experiment Station.
- 1918 Six buffalo received from Portland, Oregon, City Park.
- 1921 Executive order declares Sullys Hill a bird refuge--all wildlife now protected.
- 1931 Congress removes Sullys Hill from National Park system, leaving Bureau of Biological Survey in full charge--later became Fish and Wildlife Service.

I. GENERAL

A. Description of the Area

Sullys Hill Preserve is a 1674 acre area located on the south shore of Devils Lake in NE North Dakota. Its large wooded terminal moraine hills are unique in the open plains of the State. The largest of the hills was named for Gen. Alfred Sully, who led a campaign against the Sioux in 1865.

Tours of the 700 acre enclosure with its herds of 30 Bison, 20 Elk, and 20 White tailed deer are popular with refuge visitors. The 60 acre picnic area contains a 12 acre lake on which a few Canada geese are raised by our semi-captive display flock. Also displayed are Snow and Blue geese and Whistling swans. Several broods of wild ducks, including Wood ducks, are raised on the pool.

The area, established as a national park in 1904, is rich in Indian and early military history. Several burial mounds on the preserve are thought to be over 600 years old. Similarity of construction indicates a link with the mound builders of Mexico. What is now our big game pasture provided logs and clay bricks for the building of Fort Totten (one mile west of headquarters).

Also administered from the preserve are 12 easement refuges, in several surrounding counties, totaling 28,000 acres. These function in duck production and moulting and goose and duck migration. Best known is "Lac Aux Mortes", a goose hunters paradise locally called Lake Alice.

B. Weather Conditions

The highlight of the 1966 weather year was a 3 day blizzard, thought by many to be the worst in history. The storm began on Wed. eve, March 2, depositing 30 inches of snow accompanied by winds to 40 mph. Zero visibility and drifts to 20 feet virtually paralyzed the entire region for several days.

Losses of human life, stock and property ran high in N. Dak., S. Dak. and Minn. Numerous buildings and structures collapsed under the weight of the snow. Temperatures during the period were moderate, however, with highs in the 15 - 20 degree range.

Due to the protection of the hills and trees the blizzard was not quite so severe at Sullys Hill. Along the lake shore, however, numerous trees and shrubs were broken down. One half mile of fence adjacent to the shelterbelt in Unit II was crushed, with wire broken every few yards. Many man and equipment hours were devoted to refuge snow removal.

Monthly average temperatures were near normal except for January, 12.8 degrees below normal. Precipitation total and distribution were near normal except for the 30 inch snow in March.

The date of the first frost at the preserve is unknown. By September 20 we were receiving frost nearly every night. The first snow fall came on October 21, about $\frac{1}{2}$ inch accumulation. Four inches of snow fell November 5 and 6. Some snow has remained on the ground since that time.

1966 Weather Summary

	Precipitation			Temperature			
	Precip	Normal	Snow	Max	Min	Ave	Norm ave
Jan	.25	.53	5 in.	19	-34	-8.2	4.6
Feb	.44	.37	7.7	42	-35	5.5	8.6
Mar	3.21	.77	30.7	63	-13	28.7	21.6
Apr	1.47	1.15	7.4	67	18	36	39.9
May	.67	1.44		92	22	51.1	52.4
Jun	2.96	3.36		93	37	64	62.5
Jul	3.47	2.57		95	51	71.5	69.7
Aug	2.86	2.18		91	47	65	67.3
Sep	.71	1.70		93	31(25th)	58.5	56.4
Oct	.73	1.07	1	81	18(24th)	45.1	44.3
Nov	.26	.68	3.1	41	-5	20.2	25.3
Dec	.46	.49	5.3	40	-28	8.8	3.8
Tot	17.49	16.98	60.2				
			Ext	95	-35		

Observations made at radio KDLR cooperative weather station, Devils Lake.

C. Habitat Conditions

1. Water. Water levels were good at Sullys Hill and the easement refuges all during the year. Sweetwater lake in the recreation area was too high in the spring, with several nesting islands inundated.

Ice was nearly gone from Sweetwater on April 9; all gone April 12. Devils Lake became entirely open on April 24. On November 4 Devils Lake was freezing at the edges and Sweetwater was closed except for a hole kept open by the geese. By November 9 Devils Lake was frozen over.

2. Food and Cover. Normal moisture and distribution made 1966 another good year. Production of wild berries and acorns was very low, however, due to late frost. The harvest on hay land was above normal. The new native grass seeding in unit II appeared satisfactory with Slender wheatgrass dominant in the stand. The game enclosure was in excellent condition going into winter with a good seed crop on native grass species. Animals butchered during the annual disposal were in excellent shape.

II. WILDLIFE

A. Migratory Birds. The first spring migrants into the area were several Buffleheads on March 11! They were sighted on the Sheyenne river, south of the refuge. This unusual arrival was probably due to the birds becoming confused after being caught in the March 2 - 4 blizzard, which was even worse farther south.

On March 21 Lake Alice contained 2000 geese and 2000 ducks. Two W. swans were seen flying over the headquarters on March 30. The first Ring billed gulls arrived March 31, with many seen April 3. Other first sightings were 2 Killdeer April 9 and 2 Great blue herons and a Kingfisher on April 15.

The goose flock was released from the wintering pen into Sweetwater lake on April 7. Three of the Large Canadas were incubating on April 22. Of these, one clutch was successful, raising 4 young. One nest, on the shore, was destroyed by a predator (Raccoon?). The other nest was inundated when water rose above the rock island. One of the geese renested, bringing off a brood on May 27. These, however, did not survive for reasons unknown. Our September flock consisted of 26 Canadas, 2 Whistling swans, 4 Snows and 4 Blues.

Seven duck broods were noted on the preserve this year. Two Mallard and one Wood Duck brood were raised on Sweetwater lake. One B-w Teal, two Redhead and one Ruddy brood were seen on the Devils Lake shore.

The fall migration was not spectacular. Peak concentrations of both ducks and geese were smaller than many years, but sustained for a longer period. Hunting was excellent.

Water areas began freezing over in late October. By November 9 Devils Lake was frozen and nearly all birds were gone.

B. Upland Birds. Sharptails and Gray partridge are maintaining stable but not large populations. Rarely, a Ring necked pheasant is seen. Three grouse nests were found in hay unit II during haying operations, at least one of which was destroyed before noticed.

C. Big Game. Bison. We entered the period with 30 Bison in the enclosure. Five 1965 heifer calves were vaccinated on March 3 for Brucellosis. Eight calves were produced, 7 in May and one during the last week in July.

Six bulls and three cows were butchered during the disposal period. One 4 month old heifer was sold live after being orphaned by the disposal program. The cow had been passed over in other recent harvests because of traditionally late calves, last year in August.

Elk. The period began with 20 elk in our enclosure. Six calves were reared. Three bulls and 3 cows were butchered during the fall, leaving 20 animals at the close of the period.

White Tailed Deer. The January population in the enclosure was estimated at 20 animals. Two winter losses were noted; a fawn was found dead after being caught by the head in the hay corral gate. Another, apparently gored by a bison, was found alive and dispatched by Maintenceman Nelson.

Twelve deer were removed during the disposal, donated to the N.D. Deaf School and Ft. Totten Indian School. The population estimate at the close of the period was 15.

Outside the enclosure a buck and 2 does were seen several times during the fall and early winter in the headquarters and picnic areas.

Big Game Disposal. Our disposal began with the removal of one bison on October 12. Butchering of elk and bison was completed by December 7, and the last of the deer on January 5, 1967.

Weights of butchered bison were higher than usual. Fertilization and good moisture during 1965 and 66 produced excellent pasture and hay crops. In addition, beginning in March 1966 winter hay feeding was supplemented with protein-vitamin concentrate, grain and molasses cubes.

As a fringe benefit, the use of cubes greatly facilitated the 1966 disposal. Elk and bison were lured to feedings of cubes, and easily shot from ranges of 60 yards or less. The deer, however, remained dispersed and had to be hunted and taken individually.

Blood samples were taken from butchered animals of all species and sent to the N.D. Livestock Sanitary Board for Brucellosis testing. (See disease section.)

Entrails of animals were inspected for T.B. or other disease by USDA Veterinarian Gilbertson.

Butchered bison and elk were sold whole to clubs. They were field dressed by refuge personnel and picked up at the preserve by the purchasers or delivered to Skyberg's in Devils Lake for processing.

1966 BIG GAME DISPOSAL

Bison

Butchered	Buyer	Quantity	Age/sex	Dressed wt	Receipts
10/12/66	Underwood Commercial Club	1	2 yr M		\$200
10/25	Pleasant Lake W.L. Club	1	2 yr M		200
11/8	Wolford W.L. Club	$\frac{1}{2}$	2 yr M	454	75 (bruise)
11/8	Buffalo Lake Club	$\frac{1}{2}$			100
11/8	Kensal W.L. Federation	1	2 yr M	490	200
11/18	Carrington VFW	1	3 yr F	426	200
11/28	Lakota-Warwick W.L. Club	1	UKN F	468	200
11/28	SDSU W.L. Club, Brookings	1	2 yr M	508	200
11/28	Minot K.C.	1	2 yr M	560	200
12/5	Valley City Lions	1	UKN F	340	170 (Sub. wt.)
12/14	(live) Maurice Schwan, Devils L.	1	4 mo. F		100
		<u>10</u>		F Ave. (3) 411	lbs
				2 yr M Ave. (4) 503	

Elk

11/17	Lehr W.L. Club	1	UKN F		90
11/17	Devils Lake Elks	1	UKN F	298	90
11/17	Fish L. Club, Harlow	1	UKN F		90
12/5	Devils Lake Eagles	1	1 yr M	270	90
12/7	Devils Lake IOOF	1	1 yr M	226	90
12/7	Devils Lake Rotary	1	1 yr M	226	90
		<u>6</u>			<u>\$2385</u>

White tailed deer

11/15	- N.D. Deaf School	5	F		Donated
1/5/67	Devils Lake, N. Dak.	3	M		
	Ft. Totten Indian School	2	F		
		1	M		
	Lost in field (found next day)	1	M		
		<u>12</u>			

D. Fur Animals, Predators, Rodents, Other Mammals.

A Short tailed weasel inhabited the barn during the fall until mid-December, when only his tail and a bit of fur were found. Apparently it was eaten by rats. Secondary poisoning after gorging on anti-coagulant treated rats may have caused the weasel's death.

A Mink was seen at Sweetwater lake in March and again in December.

Red fox were observed on the preserve several times during the year. One was observed using a den in hay unit II in September. At least two active dens were seen in the game enclosure during the animal disposal. Two fox were sighted from the air during the winter deer census. No Gray fox have been seen in the past year.

Raccoons are common in the area. Numerous tracks were seen around Sweetwater lake during the summer. The culprit which destroyed one of the goose nests last spring was most likely a raccoon.

Fox and Gray Squirrel populations appear to be high again this winter despite low mast production of oak trees.

Norway rats are a constant problem in the barn. Much digging in the earth floor indicated an increase during September. Bait boxes containing anti-coagulant poison were put out. Old hay and debris were removed. The infestation appears to be much reduced.

Domestic dogs have been a perpetual problem in the big game enclosure. Groups of up to five were seen there during the fall, but none have been noted this winter.

E. Hawks, Eagles, Owls, Crows, Ravens, Magpies.

Two eagles were seen in the game enclosure during the fall. One Golden (?) was observed on November 15. An adult Bald was sighted November 25 and again on the 28th.

Hawks present during the summer included Red tailed hawks, Marsh hawks and Coopers hawks.

One pair of Great horned owls was noted several times during the year. Short eared owls are common in the area.

Peak crow numbers were estimated at 80 during the fall migration. A few pair stayed to nest on the preserve.

Magpies were abundant in the enclosure during the fall disposal period. Groups of 10 to 15 birds were often seen feeding on the entrails of butchered animals.

F. Other Birds. The first Passerines to arrive were two Robins on March 21. A Horned lark was noted on 3/25, followed by Meadow larks and R-w blackbirds on 3/26. Three Mourning doves and a Bobolink were seen on 4/9.

Our first Christmas count was conducted on December 30, with manager Gilbert and Wetlands manager Perkuchin (Devils Lake AAO) participating. It was a dreary day with some fog and snow flurries, and little bird activity. 65 birds of 10 species were tallied on the count, covering Sullys Hill, Lone Tree WPA, St. Michaels mission area.

1966 Christmas count

<u>Sullys Hill</u>		<u>Off refuge</u>	
Blue jay	4	Snow bunting	10
W-b nuthatch	6	Long-e owl	1
House sparrow	20	Short-e owl	1
Chickadee	2	Magpie	4
D. Woodpecker	1	Blue jay	3
Magpie	12	S-t grouse	1
	<u>45</u>		<u>20</u>

Also seen during count period:

Cedar waxwing	20
Brown creeper	1
Hairy woodpecker	1

G. Disease. Butchered animals of all species were Brucellosis tested. All elk and deer were found to be negative. One 2 year bison was a suspect and another reacted positively to the initial (plate?) test. Two supplementary tests on this sample were negative, however.

Normal procedure in such a case would be to test the entire herd. For us this entails a considerable modification of our corral system. Since we have no history of the disease and none has been found in this general area the N.D. Livestock Sanitary Board has not insisted that we test immediately. Communications with the board, through USDA veterinarian Gilbertson, indicate they will be happier when we have tested, however. Hopefully we can be prepared to conduct complete herd testing next fall.

III DEVELOPMENT AND MAINTENANCE

A. Physical Development. Several storage cabinets from the old residence and new shelves were installed in the basement of Q-1. During the interim between managers the kitchen, bathroom, front room and hallway of Q-1 were repainted. New linoleum was installed in the kitchen and bathroom.

The inside of the shop was repainted. New windows were installed in the picnic shelters as needed.

Twelve Wood duck nesting boxes were built from 100 lb. grease drums and of wood. These were placed in the woods around Sweetwater lake.

One mile of new fence was built and $\frac{1}{2}$ mile of fence rebuilt around hay unit II. The section rebuilt had been broken down every few yards by snow from the March blizzard. A new gate and approach with culvert were constructed at the N.E. corner of the grazing unit.

The inlet culvert at Sweetwater lake was removed and reset after washing out in April. Other minor washes in refuge roads were filled.

At the Easement Refuges additional signs were added to posting at several points of possible hunter confusion.

B. PLANTINGS. Refuge cropping is conducted as part of a renovation program in hay unit II. Since aquisition from B.I.A. in 1959, strips of this abused land (farmed since the late 1800's, when it supplied winter provisions for Ft. Totten military personnel) have been summer fallowed and seeded to various grass mixtures.

The last of this land to be thus renovated is a 30 acre chunk in the N.E. corner. Seven acres of this was summer fallowed in 1966 and 23 acres was seeded to Millet by refuge personnel. Approximately 300 bushels of millet were harvested for the preserve by Marvin Jabs, who received the straw. Hay permittees Orum and DeVaney were to seed native grasses in the fall, but backed out after the change in managers, fearing a change in land use or permittees. The grass will be seeded this spring with a cover crop.

C. Control of Vegetation. Several patches of Leafy Spurge were treated with soil sterilant, polybor chlorate. Treatment appeared to be successful. Patches will be rechecked in the spring and treated with Tordon if the Spurge persists.

Poison ivy in the recreation area was sprayed several times during the summer with 2,4-D.

D. Fires. none.

IV RESOURCE MANAGEMENT

A. Grazing. Our 160 acre grazing unit was used by Marvin Jabs. Stocking rate was 100 AUM's, during the period July 1 - October 31. Our well in the unit gave out during the summer, requiring Mr. Jabs to shuttle his cattle back and forth for water in an adjacent pasture belonging to him. The rate was \$1.50/AUM.

B. Haying. A total of 250 acres was hayed on the preserve by local operators. Total hay tonnage was estimated at 252. The refuge share (1/3) will be more than adequate for winter big game feeding. All hay was put up in stacks, with our share hauled to the corral stack yard.

Hay unit I (78 acres of mixed Quack, Alfalfa, Brome, etc.) was put up without rain during July 11 - 15 by Harold Belcher. The yield was 63 tons.

Hay unit II was put up by Donald Devany and Helmer Orum. It contained 172 acres and yielded 189 tons. Yield breakdown as follows: 74 acres alfalfa (31 A new), 98 T; 42 A Brome, 28 T; 16 A sweetclover, 7 T; 40 A mixed natives (Slender wheat dominant), 56 T. The old stand alfalfa (43 A) yielded 72 tons in two cuttings.

C. Fur Harvest. None at Sullys Hill. (See Easement Refuge section.)

D. Timber Removal. Free use permits were issued to Pat White (March 66) and Pierre Culbertson (December 66) for gathering of dead trees and branches for firewood. Most of the reservation Indians have switched to oil heat so the demand for wood is slight.

V. FIELD INVESTIGATIONS

None.

VI. PUBLIC RELATIONS

A. Recreational Use. Visitor use days were computed at 4,300, less than half the 1965 figure (10,600). Budget limitations did not allow sufficient personnel to conduct public tours of the big game enclosure. In addition, this was the first year of the entrance fee. People were reluctant to pay the fee, particularly since tours were not available. Many turned around and left rather than pay to get in. Entrance was permitted to purchasers of a \$1.00 per car fee, or to holders of the \$7.00 "Golden Eagle" annual permit.

Entrance fee receipts during the period were as follows: Ten pedestrian passes, \$5; 212 daily auto passes, \$212; 9 Golden Eagle annual permits, \$63.

B. Refuge Visitors.

Date	Name	Purpose
1/24	Earl Sanderson, NDG&F	Crippled goose (Canada)
1/28	Maurice Schwan	Purchase bison
1/31	Ward Gilbertson, USDA	Bison vaccination
3/11	Pat White	Wood permit
3/11	Louis Zieman	Bufflehead report, arrival
3/21	Dr. Gilbertson	Vaccination
4/13	John Winship, BSFW Pilot	Aerial photos
4/19	Ed Doeling, BSFW, Hyd. Eng.	Runoff & flooding at L. Alice
4/28-9	Winship	Aerial photos
5/17	Winship	Aerial pair count
6/9	Winship	Aerial photos
6/29	Mrs. M. Jabs	Grazing fee payment
7/25	Winship & Eastmen	Excess, Camp Grafton
7/26-7	Winship	Aerial brood count
8/10	Ron Wahlin, BSFW, Eng.	Surveys, Lake Alice
8/11	Maurice Wick, contractor	Lake Alice construction
10/3-4	W.J.Hill, Clerk, L. Souris	Administrative work, orient.(Gilbert)
10/5	Dave O'Brien, ND Parks	NYC program
10/11	E. Doeling & R. Johnston	L. Alice power line easement
10/12	R. Johnston, BSFW Eng.	Levels at L. Alice
10/12	B. Pfiefer & J. Plaggemeyer	
	W.L. Services	Courtesy call
10/13	D. O'Brien	Tour
10/26-7	Ed Smith, L. Harrison	Inspection
10/28	Orum, DeVany, Belcher	Hay hauling
10/31	Don Perkuchin, AAO	Level work, Billings Lake
11/3	J. Elisperger	L. Alice trapping permit
11/3	Pfiefer, Plaggemeyer	Animal disposal
11/4	B. Mahanna	Furnace check
11/4	Harold Boardman, Kensal	Photos of big game
11/7	Perkuchin	Move picnic tables
11/8	Kensal W.L. Club - Boardman,	Pick up bison
	Lisney, Holm	
11/8	Dr. Gilbertson, Elmer Henschal	Disease check butchered bison
11/14	Vic Blazevic, USGMA	Crippled swan
11/28	Dr. Gilbertson	Disease check
11/29	R. Johnston, Eng.	L. Alice inspection, construction
12/12	Duane Moen, Devils L.	Employment opportunities
12/14	Dr. Gilbertson	Vaccinate bison calf
12/14	M. Schwan	Pick up bison calf
12/15,16	Johnston	L. Alice inspection
12/20	M. Hammond, L. Souris	W.L. Inventory Plan
12/30	Perkuchin	Christmas bird count

C. Refuge Participation. The refuge managers were active in Devils Lake service clubs, Mr. Bauman in Rotary, Gilbert in Lions. Maintenceman Nelson held office in the I.O.O.F. Lodge.

Requests for refuge programs were relatively few after the many presentations following the announced closure of the preserve in 1965. Tours of the game enclosure were provided groups and other visitors when time allowed.

D. Hunting. None on the preserve or easement refuges.

E. Violations. Fourteen apprehensions of illegal hunters were made by refuge personnel at easement refuges. Six of these were not prosecuted (trespass violations) due to inadequate posting. GMA's Blazevic and Reynoldson assisted with the prosecutions.

Seven additional cases were made after being reported by local farmers and followed up by GMA Blazevic. Farmers reporting violations were Arden Helgeseth and Barney Runglie, Churches Ferry; Howard Dressen, Churches Ferry; Gottlieb Alexander, near Buffalo Lake NWR.

Violations at Easement Refuges - 1966

<u>Name</u>	<u>Violation</u>	<u>Plea</u>	<u>Sentence</u>
Johnson, Lester A.	Hunting on Silver L. NWR	G	\$25 fine
Rugby, N.D.			
Peterson, Chas. E.	"	"	"
Minot, N.D.			
Bergo, Bruce Leroy	"	"	"
Minot			
Moe, Richard B.	Hunting on L. Alice NWR	"	\$50 fine
Gervrais, Donald G.	"	"	"
Wentworth, Wayne A.	"	"	"
Mpls, Minn.			
Moe, Robt. M.	"	"	"
Monticello, Minn.			
Guffey, Terry D.	Hunting on Silver L. NWR	NG	\$25 fine
Gouin, Robt. L.	"	"	"
Devils L., N.D.			
Parker, James R.	Hunting on L. Alice NWR	Not pros. (juveniles)	
Wallace, Roger D.	"	Counseled w/parents	
Cando, N.D.			
Martin, Michael C.	Hunting on L. Alice NWR	G	\$75 fine
Martin, Arthur W.	"	"	"
Lignite, N.D.			
Schneibel, Dennis M.	Hunting deer, Buffalo L.NWR	G	\$35 fine
Esmond, N.D.			
Braun, Lyle E.	Retrieving on L. Alice NWR	Not pros. (juvenile)	
Cando, N.D.		Counseled w/parents	

F. Safety. Safety aspects of duties were discussed during work planning sessions. Items discussed included driving and machine operating safety, storage, safety during big game handling and disposal. Safety bulletins were reviewed.

No accidents occurred during the period.

Vehicles and equipment received periodic safety inspections. Fire extinguishers were checked. Storage reorganization and clean up of debris in shop, machine shed and barn were accomplished during the fall and early winter. Two security lights were added in the headquarters area.

Days without a lost time accident, 12/31/66, 747.

Formal safety meetings will be held during periods when we have a work crew in addition to the two permanent personnel.

VII OTHER ITEMS

A. Items of Interest. Effective August 27, Manager Bauman transferred to Bismarck, N. Dak. where he assumed duties as a refuge planner with the Garrison Diversion Project in the state. His duties include development of wildlife mitigation and enhancement lands.

A local benefit of the Diversion will be the raising of water level and quality in Devils Lake, now quite low and very alkaline.

Manager Gilbert transferred to Sullys Hill September 25 from Lower Souris NWR at Upham, N. Dak.

B. Credits.

Irvin A. Nelson, Maintenceman - N.R. forms, answers to numerous questions on activities of the past year.

David L. Gilbert, Manager - Write up of report, typing.

NORTH DAKOTA EASEMENT REFUGE DISTRICT # 2

Lake Alice (Lac Aux Mortes)	Pleasant Lake
Buffalo Lake	Rock Lake
Brumba Lake	Sibley Lake
Johnson Lake	Silver Lake
Lamb's Lake	Snyder Lake
Little Goose Lake	Wood Lake Marsh

Water Conditions. Water levels were good all during the year. By March 21 water was flowing in Mauvais Coulee above Lake Alice. In mid-April landowners feared a flood of major proportions from melting of the March 3 blizzard snow. Hydraulics Engineer Ed Doeling accompanied Manager Bauman on an April 19 check of runoff conditions in the Coulee. Some flooding occurred, but did not reach the disaster level anticipated.

Although the plug at the outlet of Lake Alice was not in place, Lake Irwin into which it flows remained full, holding the level in Lake Alice as well.

In the fall work began on a dike and water control structure at the Lake Alice outlet. A proposed road and powerline in to the structure site met resistance from the local landowner and the township board, and had to be abandoned at least for this year.

1966 Impoundment Data, Lake Alice.

	<u>Ave. Elevation</u>	<u>Water Depth</u>	<u>Area (acrea)</u>	<u>Capacity (A-feet)</u>
Nov 65	1443.0 ice	4.0 feet	3640	9220
Mar 66	1442.96 ice	4.0	3610	9100
Apr	1444.25	5.25	UKN	UKN
May	1443.95	4.9	"	"
Jun	1443.50	4.5	"	"
Jul	UKN			
Aug	1442.90	3.9	3570	8890
Sep	1442.37	3.4	3250	7150
Oct	1442.17	3.2	3060	6500
Nov	1442.04	3.0	2950	6070
Dec	1442.08	3.1	2990	6200

1966 Water Depths on Easement Refuges

	<u>Freeze up 1965</u>	<u>Spring 1966</u>	<u>Freeze up 1966</u>
Lake Alice	48 inches	63 inches	37 inches
Buffalo Lake	75	75 +*	85
Brumba Lake	41	41+*	31
Johnson Lake	74	84	75
Lambs Lake	55	55+*	55
Little Goose Lake	116	116+*	110
Pleasant Lake	38	42	32
Rock Lake	64	57+*	45
Snyder Lake	131	131+*	120
Sibley Lake	31	43	40
Silver Lake	25		32
Wood Lake Marsh	76	76+*	75

*Approximate. Most above spillway level.

Waterfowl. Breeding pair counts were flown by Manager Bauman and Pilot-Biologist Winship on May 17. Pairs counted were up slightly from 1965 despite poor conditions (strong wind) on the day of the flight. Scaup pair were not included since most of them move on north before nesting.

Aerial brood surveys were made July 26-27 by Bauman and Winship. The number of broods was double the 1965 figure, probably due to greatly improved water levels.

Thirty five ducks, dead of Botulism, were noted at Lake Alice during the brood count.

Breeding Pairs and Lone Males. (Ducks)

	<u>1963</u> <u>(5/16)</u>	<u>1964</u> <u>(5/25)</u>	<u>1965</u> <u>(5/19)</u>	<u>1966</u> <u>(5/17)</u>
Lake Alice	419	424	229	161
Buffalo Lake	64	76	36	38
Brumba Lake	37	28	23	23
Johnson Lake	142	51	55	49
Lambs Lake	29	21	26	27
Little Goose Lake	16	18	9	6
Pleasant Lake	136	71	31	51
Rock Lake	154	99	102	151
Sibley Lake	104	55	67	57
Silver Lake	185	71	30	56
Snyder Lake	87	38	59	85
Wood Lake Marsh	<u>17</u> 1390	<u>10</u> 962	<u>9</u> 676	<u>4</u> 708

Total Coots.

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>
Lake Alice	335	60	940	256
Buffalo Lake	7	19	30	10
Brumba Lake	40	8	12	23
Johnson Lake	76	2	24	2
Lambs Lake	-	1	48	31
Little Goose Lake	20	-	8	2
Pleasant Lake	93	3	120	13
Rock Lake	-	3	318	42
Sibley Lake	50	-	32	34
Silver Lake	25	45	16	17
Snyder Lake	-	24	90	14
Wood Lake Marsh	<u>-</u> 646	<u>-</u> 165	<u>2</u> 1640	<u>-</u> 1444

Aerial Duck Brood Census.

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	
Lake Alice	65	40	58	73	
Buffalo Lake	19	17	7	18	
Brumba Lake	9	8	3	3 (partial)	
Johnson Lake	33	19	4	18	500 M. Ruddy's 80 Can. back
Lambs Lake	3	8	4	22	
Little Goose Lake	1	4	-	3	
Pleasant Lake	24	9	8	3	
Rock Lake	24	18	13	21	
Sibley Lake	30	10	5	46	800 ducks 200 coots
Silver Lake	9	3	7	9	+24 on coulee, full this yr.
Snyder Lake	15	4	5	18	1 Blue goose
Wood Lake Marsh	3	2	2	1	
	<u>235</u>	<u>142</u>	<u>116</u>	<u>235</u>	

Fur Harvest.

Trapping on the easement refuges is by free permit, issued to those having permission from a landowner in the refuge.

Interest was high, resulting from last year's good prices and a large number of houses built on the marshes in the fall. 35 permits were issued. The season was disappointing to a number of trappers, however. Muskrat numbers per house, according to them, were fewer than expected. Fur prices were also down from last year - muskrat from over \$1.00 to 85 cents or less. Fox prices fell from \$8 to \$10 to less than \$5.00.

Summary of Fur Trapping.

	<u>Trappers</u>	<u>Muskrat</u>	<u>Mink</u>	<u>Weasel</u>	<u>Red Fox</u>	<u>Raccoon</u>	<u>Beaver</u>
Lake Alice	22	2566			1		
Buffalo Lake	1	47	1		2	2	
Johnson Lake	7	57					
Pleasant Lake	2		1				
Rock Lake	1						4
Silver Lake	2	40				1	
Wood Lake Marsh	1	30	4	1	2	1	
	<u>36</u>	<u>2740</u>	<u>6</u>	<u>1</u>	<u>5</u>	<u>4</u>	<u>4</u>

SIGNATURE PAGE

Submitted by:

David L. Dilbert

4/17/67

Refuge Manager

Approved, Regional Office:

Date: 4-19-67

Edward J. Smith
(Signature)

Asst. Regional Refuge Supervisor

W A T E R F O W L

REFUGE Sullys Hill NGP

MONTHS OF September TO December, 1966

(1) Species	(2) Weeks of reporting period									
	9/3 1	9/10 2	9/17 3	9/24 4	10/1 5	10/8 6	10/15 7	10/22 8	10/29 9	11/5 10
Swans:										
Whistling				20	80	120	120	120	80	150
Trumpeter										
Geese:										
Canada										
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard	70	42	80	100	150	210	130	330	830	1500
Black										
Gadwall	40	20	20	60	100	150	60	150	400	60
Baldpate	200	200	160	250	280	400	200	600	600	200
Pintail	20		20	10	10	20	20	30	40	
Green-winged teal	40	24	20	40	30	20	20	30		
Blue-winged teal	40	24	20	40	30	20	20	30		
Cinnamon teal										
Shoveler			20	20	20	30	30	1500	1200	2000
Wood	5									
Redhead	20	20	40	60	200	460	480	660	600	80
Ring-necked										
Canvasback			20	20	60	80	60	80	80	20
Scaup				80	150	300	800	150	1200	2000
Goldeneye										
Bufflehead				5	20	30		40	30	800
Ruddy	200	400	400	450	450	600	150	800	200	60
Other										
Coot:	400	800	600	600	500	200	60	150	100	

3 -1750

Cont. NR-1

(Rev. March 1953)

WATERFOWL
(Continuation Sheet)REFUGE Sullys Hill NGPMONTHS OF September TO December, 1966

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production : Broods: Estimated : seen : total	
	11/12 11	11/19 12	11/26 13	12/3 14	12/10 15	12/17 16	12/24 17	12/31 18			
Swans:											
Whistling									4,851		
Trumpeter											
Geese:											
Canada											
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard	20	30							24,444		
Black											
Gadwall									7,420		
Baldpate									21,630		
Pintail									1,176		
Green-winged teal											
Blue-winged teal									1,568		
Cinnamon teal											
Shoveler									33,768		
Wood									35		
Redhead									18,340		
Ring-necked											
Canvasback									2,968		
Scaup									32,781		
Goldeneye											
Bufflehead									6,468		
Ruddy									25,970		
Other											
Coot:									23,877		

(over)

	(5)	(6)	(7)	
	Total Days Use	: Peak Number	: Total Production	SUMMARY
Swans	4,851	: 150	:	Principal feeding areas Sweetwater Lake & flooded hay
Geese		:	:	meadow. Swans along Hwy 57 grade.
Ducks	176,568	: 6,720	:	Principal nesting areas
Coots	23,877	: 800	:	

Reported by Irvin Nelson

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

- (1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.
- (2) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington, D. C.
1953

3-1751

Form NR-1A

(Nov. 1945)

MIGRATORY BIRDS
(other than waterfowl)Refuge Sullys Hill NGPMonths of September to December 19566.

(1) Species	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Number
I. <u>Water and Marsh Birds:</u>										
G-b heron	2	4/15	2	4/15	1	10/28				2
W. pelican	40	7/15	40	7/30	40	7/30				40
A. bittern	1	4/30	2	10/14	2	10/14				6
D-c cormorant	5	5/6	20	7/30	20	7/30				40
B-c night heron	2	6/30	2	7/8	2	7/8				4
</										

(over)

(1)	(2)		(3)		(4)		(5)			(6)
III. <u>Doves and Pigeons:</u>										
Mourning dove	3	4/9	20	7/15	6	10/28				60
White-winged dove										
IV. <u>Predaceous Birds:</u>										
Golden eagle	1	11/15	1			11/15				1
Duck hawk										
Horned owl	2	Year around resident								2
Magpie	20	"								20
Raven										
Crow	1	3/9	60	9/2	4	10/30				80
Red-t hawk	1	3/21	2	5/13	1	9/9				2
Marsh hawk	1	3/24	3	10/20	3	10/20				4
Coopers hawk	1	4/15	2	5/20=	2	10/28				2
Bald eagle	1	11/25	1		1	12/2				1
Reported by <u>Irvin Nelson</u>										

INSTRUCTIONS

- (1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiformes)
 II. Shorebirds, Gulls and Terns (Charadriiformes)
 III. Doves and Pigeons (Columbiformes)
 IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)
- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: The greatest number of the species present in a limited interval of time.
- (4) Last Seen: The last refuge record for the species during the season concerned.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge during the period concerned

Refuge Sullys Hill NGP

Months of September to December, 19466

[illegible]

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- (1) SPECIES: Use correct common name.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS: Indicate total number in each category removed during the report period.
- (6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

3-17

Form NR-3

(June 1945)

BI NAME

Refuge Sullys Hill NGPCalendar Year 1966

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population		(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re- stocking	Sold	For Research	Predation	Disease	Winter Loss	Number	Source	At period of Greatest use	As of Dec. 31	
Am. bison	700 acres, primarily timber & brush on large rolling hills. Approx. 250 grass in meadows and hillsides.	8			10							38	28	
Elk	"	6			6							26	20	
W-t deer	"	9			11	donated			3			27	15	

Remarks: Deer were donated to N.D. Deaf School and Fort Totten Indian School.

Reported by Irvin Nelson

INSTRUCTIONS

Form NR-3 - BIG GAME

- (1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.
- (2) DENSITY: Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge: once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated total number of young produced on refuge.
- (4) REMOVALS: Indicate total number in each category removed during the year.
- (5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.
- (6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.
- (7) TOTAL REFUGE POPULATION: Give the estimated population of each species on the refuge at period of its greatest abundance and also as of Dec. 31.
- (8) SEX RATIO: Indicate the percentage of males and females of each species as determined from field observations or through removals.

REPORT ON BIG-GAME ANIMALS

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE


Refuge: Sullys Hill NGP

Date: Jan. 5, 1967

The following is a report on the changes which have occurred
in the number of animals during the period from Jan. 1, 1966
to Jan. 5, 1967:

Losses and gains	Buffalo	Elk	Deer	Longhorns	Antelope	Sheep
TOTAL <u>Jan. 1</u> , 19 <u>66</u>	30	20	20			
LOSSES - Dead:						
Natural causes						
Accidents			3			
Sales	9	6				
Donated			11			
LOSSES - Live:						
Gifts						
Sales	1					
GAINS:						
Births	8	6	9			
Gifts						
TOTAL <u>Jan. 5</u> , 19 <u>67</u>	28	20	15			

REMARKS: Deer were donated to N.D. Deaf School and Fort Totten Indian School.


Signature: David L. Gilbert
Title: Refuge Manager

The following is a report on the changes which have occurred:

PUBLIC RELATIONS
(See Instructions on Reverse Side)

Refuge Sullys Hill NGPCalendar Year 1966

1. Visits

a. Hunting None b. Fishing None c. Miscellaneous 11,600 d. TOTAL VISITS 11,600

1a. Hunting (on refuge lands)

TYPE	HUNTERS	ACRES	MANAGED BY
Waterfowl			
Upland Game			
Big Game			
Other			

Number of permanent blinds _____

Man-days of bow hunting included above _____

Estimated man-days of hunting on lands adjacent to
refuge 250

1b. Fishing (area open to fishing on refuge lands)

TYPE OF AREA	ACRES	MILES
Ponds or Lakes		
Streams and Shores		

1c. Miscellaneous Visits

Recreation _____ Official 30Economic Use 50 Industrial _____

2. Refuge Participation (groups)

TYPE OF ORGANIZATION	On Refuge		Off Refuge	
	NO. OF GROUPS	NUMBER IN GROUPS	NO. OF GROUPS	NUMBER IN GROUPS
Sportsmen Clubs				
Bird and Garden Clubs				
Schools	1	60		
Service Clubs	1	75	1	40
Youth Groups				
Professional-Scientific				
Religious Groups				
State or Federal Govt.				
Other	2	150		

3. Other Activities

TYPE	NUMBER	TYPE	NUMBER
Press Releases		Radio Presentations	
Newspapers (P.R.'s sent to)		Exhibits	
TV Presentations		Est. Exhibit Viewers	

INSTRUCTIONS

Item 1: Total of a, b, and c, equal d.

"Visit" - definition. Any person who is on refuge lands or waters during a day or part thereof for the purpose of: hunting, fishing, bird-watching, recreation, business or economic use, official visit, or similar interest. INCLUDE - those who stop within the refuge while traveling on a public highway because of an interest in the area. EXCLUDE - persons engaged in oil or other industry not directly related to the refuge, persons using refuge as most direct route or principal avenue of traffic, and those boating on navigable rivers or the Intercoastal Canal, unless they stop to observe wildlife on the refuge.

Computing visits. Where actual counts are impractical, "sampling" is used with midweek and week-end samples varied by season or weather. A conversion factor of 3.5 (of passengers per car) is used when accurate figures are not available. Each refuge will develop a conversion factor for boats based on range of usage. Count a camper once for each 24-hour period or fraction thereof.

Item 1a: Acres - of refuge open for each type of hunting.

Managed hunts require check in and out of hunters, issuance of permits, or assignment of blinds.

Other - INCLUDE crow, fox, and similar hunting.

Lands adjacent to refuge. Normally considered within 1 mile or less of boundary, unless established sampling procedures cover a wider area. For big game hunting, the distance may be greater.

Item 1b: Acres of streams open to fishing, if practical; otherwise just miles open. Information on "shores" is primarily for coastal fishing.

Item 1c: Recreation. INCLUDE photography, observing wildlife, picnicking, swimming, boating, camping, visitor center use, tours, etc. TOTAL Recreation, Official, and Economic Use visits under Item 1.

Industrial. INCLUDE persons engaged in industry, i.e., oil industry or factories. EXCLUDE these from Item 1.

Item 2: INCLUDE the "On Refuge" groups in Items 1c and 1. In "Off Refuge" column include only those group meetings in which refuge employees actually participate. EXCLUDE these from Items 1c and 1.

Item 3: Exhibits - INCLUDE displays, fairs, parades, and exhibits OFF the refuge; EXCLUDE those ON.

3-1758

Form NR-8

(Rev. Jan. 1956)

Fish and Wildlife Service Branch of Wildlife Refuges

CULTIVATED CROPS - HAYING - GRAZING

Refuge Sullys Hill NGPCounty BensonState N. Dak.

Cultivated Crops Grown	Permittee's Share Harvested		Government's Share or Return				Total Acreage Planted	Green Manure, Cover and Water- fowl Browsing Crops Type and Kind	Total Acreage
	Acres	Bu./Tons	Harvested		Unharvested				
			Acres	Bu./Tons	Acres	Bu./Tons			
Loose hay		175 T. (24 stks)		77 T. (12 stks)					245
Millet (proso)			23	300			23		23
								Fallow Ag. Land	10

No. of Permittees: Agricultural Operations _____ Haying Operations 3 Grazing Operations 1

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE	
Alfalfa	98	74		1. Cattle		100	\$150.00	160	
Brome	28	42							
Natives (Slender W. dominant)	56	40		2. Other					
Mixed alf, Brome, Quack, Blue, etc.	63	78							
Sweet clover	7	16		1. Total Refuge Acreage Under Cultivation * Temporary, hayland renovation.					33 *
Hay - Wild				2. Acreage Cultivated as Service Operation					33

DIRECTIONS FOR PREPARING FORM NR-8
CULTIVATED CROPS - HAYING - GRAZING

Report Form NR-8 should be prepared on a calendar-year basis for all crops which were planted during the calendar year and for haying and grazing operations carried on during the same period.

Separate reports shall be furnished for Refuge lands in each county when a refuge is located in more than one county or State.

Cultivated Crops Grown - List all crops planted, grown and harvested on the refuge during the reporting period regardless of purpose. Crops in kind which have been planted by more than one permittee or this Service shall be combined for reporting purposes.

Permittee's Share - Only the number of acres utilized by the permittee for his own benefit should be shown under the Acres column, and only the number of bushels of farm crops harvested by the permittee for himself should be shown under the Bushels Harvested column. Report all crops harvested in bushels or fractions thereof except such crops as silage, watermelons, cotton, tobacco, and hay, which should be reported in tons or fractions thereof.

Government's Share or Return - Harvested - Show the acreage and number of bushels harvested for the Government of crops produced by permittees or refuge personnel. Unharvested - Show the exact acreage and the estimated number of bushels of grain available for wildlife. If grazing is made available to waterfowl through the planting of grain, cover, green manure, grazing or hay crops, estimate the tonnage of green food produced or utilized and report under Bushels Unharvested column.

Total Acreage Planted - Report all acreage planted, including crop failures.

Green Manure, Cover and Waterfowl Grazing Crops - Specify the acreage, kind and purpose of the crop. These crops and the acreage may be duplicated under cultivated crops if planted during the year, or a duplication may occur under hay if the crop results from a perennial planting.

Hay - Improved - List separately the kinds of improved hay grown. Annual plantings should also be reported under Cultivated Crops, and perennial hay should be listed in the same manner at time of planting.

Total Refuge Acreage Under Cultivation - Report total land area devoted to agricultural purposes during the year.

REFUGE GRAIN REPORT

66

Refuge Sullys Hill NGPMonths of January through December, 195

(1) VARIETY*	(2) ON HAND BEGINNING OF PERIOD	(3) RECEIVED DURING PERIOD	(4) TOTAL	(5) GRAIN DISPOSED OF				(6) ON HAND END OF PERIOD	(7) PROPOSED OR SUITABLE USE*		
				Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
Millet	300	300	600		10	290	300	300		300	None
Oats	330	30	360		360	360	360	None			
Wheat		100	100			100	100	"			
Barley		280	280			280	280	"			
Corn		30	30			30	30	"			

(8) Indicate shipping or collection points _____

(9) Grain is stored at N. D. Deaf School. _____

(10) Remarks _____

*See instructions on back.

REFUGE GRAIN REPORT

This report should cover all grain on hand, received, or disposed of, during the period covered by this narrative report.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)—55 lb., corn (ear)—70 lb., wheat—60 lb., barley—50 lb., rye—55 lb., oats—30 lb., soy beans—60 lb., millet—50 lb., cowpeas—60 lb., and mixed—50 lb. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

- (1) List each type of grain separately and specifically, as flint corn, yellow dent corn, square deal hybrid corn, garnet wheat, red May wheat, durum wheat, spring wheat, proso millet, combine milo, new era cowpeas, mikado soy beans, etc. Mere listing as corn, wheat, and soybeans will not suffice, as specific details are necessary in considering transfer of seed supplies to other refuges. Include only domestic grains; aquatic and other seeds will be listed on NR-9.
- (3) Report all grain received during period from all sources, such as transfer, share cropping, or harvest from food patches.
- (4) A total of columns 2 and 3.
- (6) Column 4 less column 5.
- (7) This is a proposed break-down by varieties of grain listed in column 6. Indicate if grain is suitable for seeding new crops.
- (8) Nearest railroad station for shipping and receiving.
- (9) Where stored on refuge: "Headquarters granary," etc.
- (10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.



Maintenanceman Nelson and Manager Gilbert (on right).

3/66-11, Feb. 67, Mrs. Gilbert



Before the coffee break. Harold Boardman, Kensal, mounted the "trophy", from a yearling elk removed this fall.

3/66-12, Feb. 67, Mrs. Gilbert



Pair of 2 year bulls growing up. CCC loggers cook shack will be removed this summer.

1/66-2, 10/25/66, Gilbert



Herd bull on one of the 600 year old burial mounds. They will be fenced to prevent predator digging.

2/66-8, 11/4/66, Gilbert



Kensal clubmembers assist as Gilbert unzips a 2 year bull during the fall disposal.

2/66-9, 11/8/66, H. Boardman(Kensal)



The tractor/loader is a valuable tool in field dressing and handling.

2/66-10, 11/8/66, Boardman



Local teenagers on Sweetwater Lake during Christmas vacation.

3/66-5, Dec. 66, Gilbert



3/66-6, Dec. 66, Gilbert

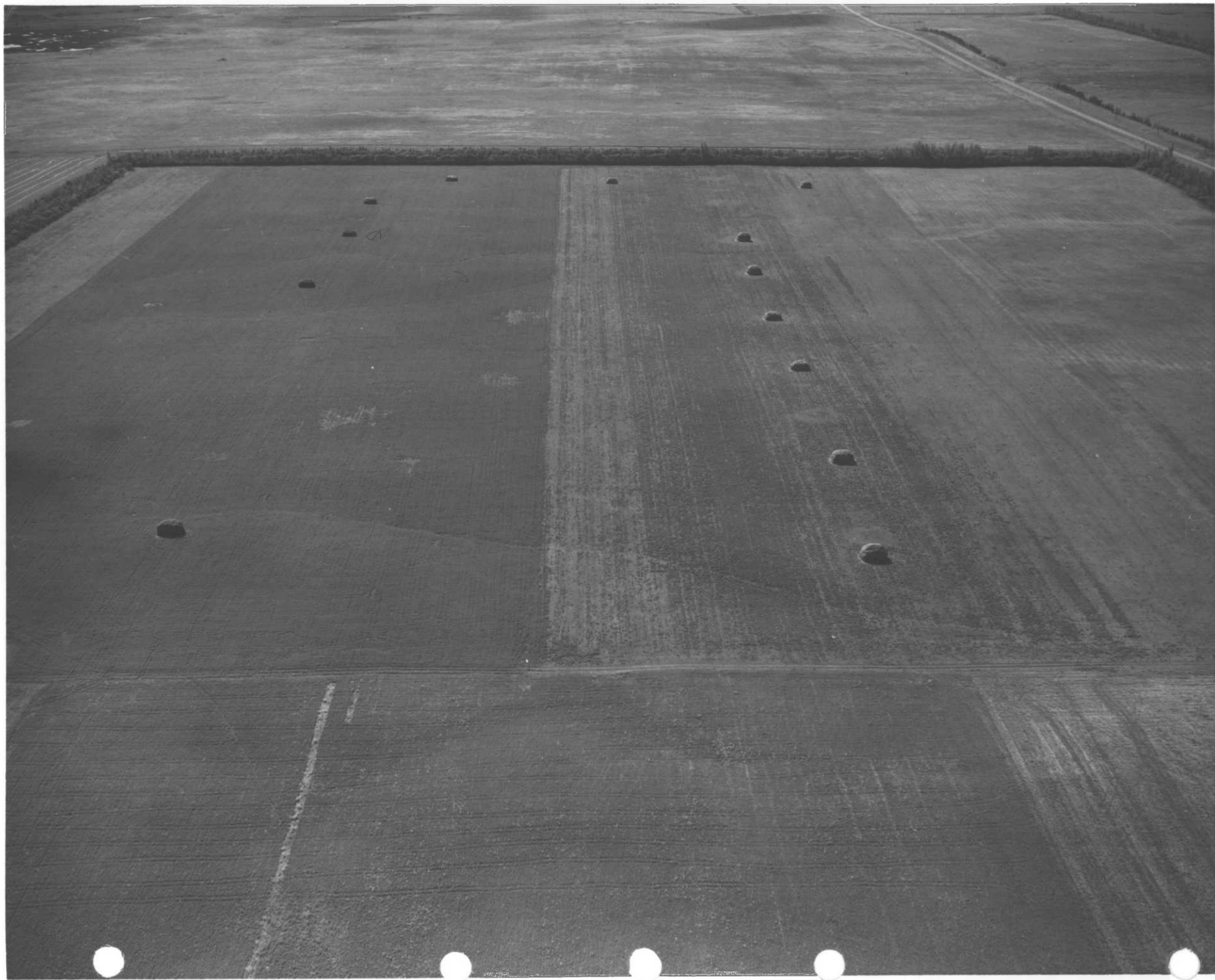


JUN 9 1966

001182

Sullys Hill Headquarters, looking N.E. Sweetwater Lake
and trail through the big game enclosure in the background.
About three broods of Canada Geese are hatched each year
on rock islands and floating platforms in the lake.

001182, 6/9/66, Winship



JUL 26 1966

001232

Hay unit II, S.W. edge of Fort Totten. Hay on the left is first cutting on 43 acres of alfalfa (total, 72 tons); to right is 40 acres of mixed natives (Slender wheat dominant), 56 tons.

Two duck nests were found in this unit, one (Mallard) in Brome, one (Sp. UKN) in natives. Two S-t grouse nests found were, one each in Sweetclover and new grass seeding (weedy).

001232, 7/26/66, Winship



Elk in big game enclosure. Sullys Hill, beyond the
elk is wooded on the north slope.

2/66-2, 11/4/66, Gilbert



JUN 9 1966

001193

North end of Rock Lake NWR, northernmost of our easements
on the Mauvais Coulee.

001193, 6/9/66, Winship



JUN 9 1966

001190

South end of Rock Lake NWR and town of Rock Lake. Previous
photo off upper right of this one.

0011~~90~~, 6/9/66, Winship

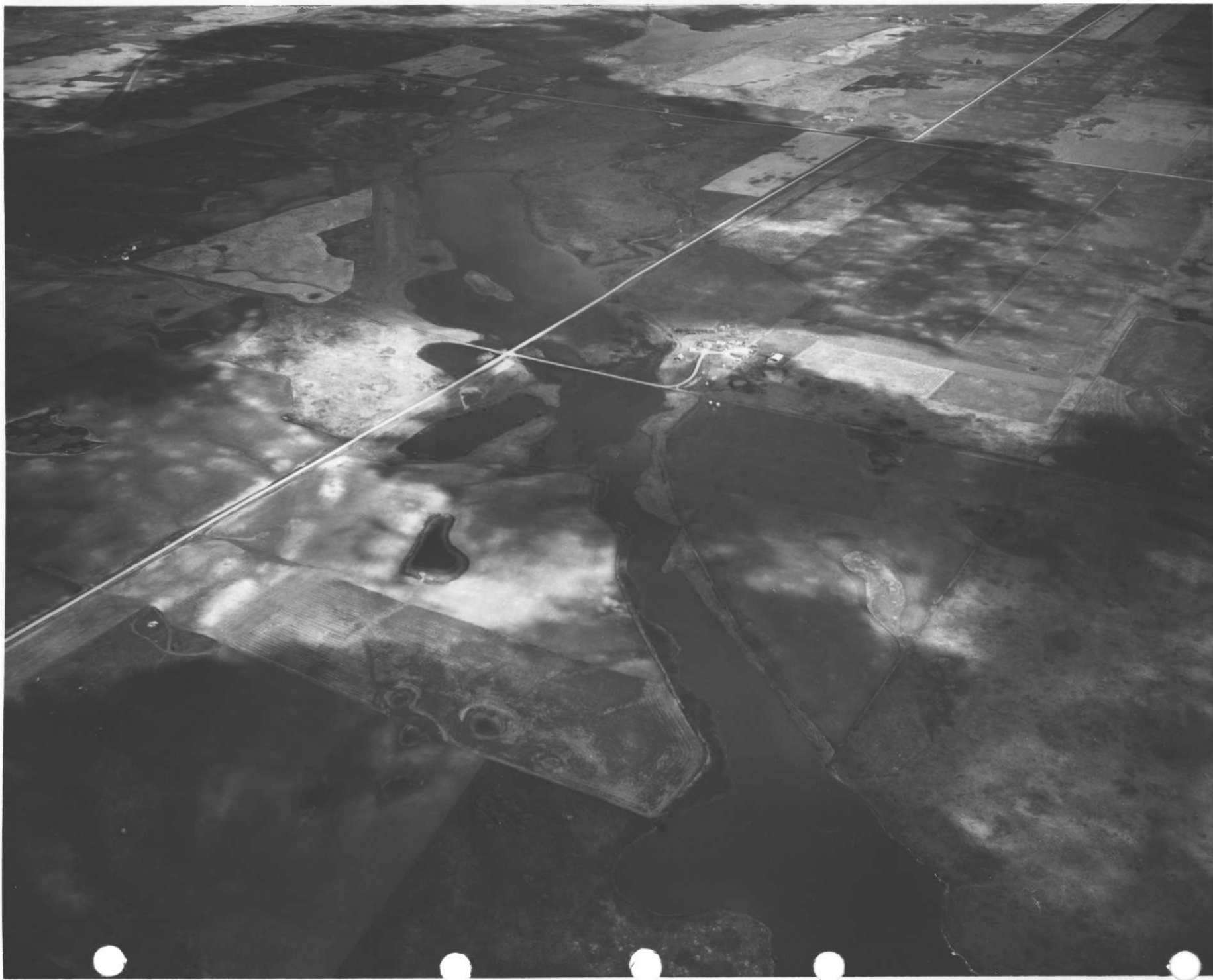


JUN 9 1966

001187

Brumba Lake NWR (Easement) on Mauvais Coulee south of
Rock Lake.

001187, 6/9/66, Winship



JUN 9 1966

001194

Next in line is Snyder Lake NWR (Easement). To the left of the spillway is a public picnic ground maintained by Towner County. The lake receives considerable public use by boaters and water skiers. Efforts to stock the lake with fish hve never succeeded due to the shallow depth, about 10 feet.

001194, 6/9/66, Winship



P. 100-100000

APR 12 1966

001265

Lake Alice inlet channel (Mauvais Coulee). Photo taken North
to South. Outlet channel and Lake Ivwin in upper right.

001265, 4/12/66, Winship

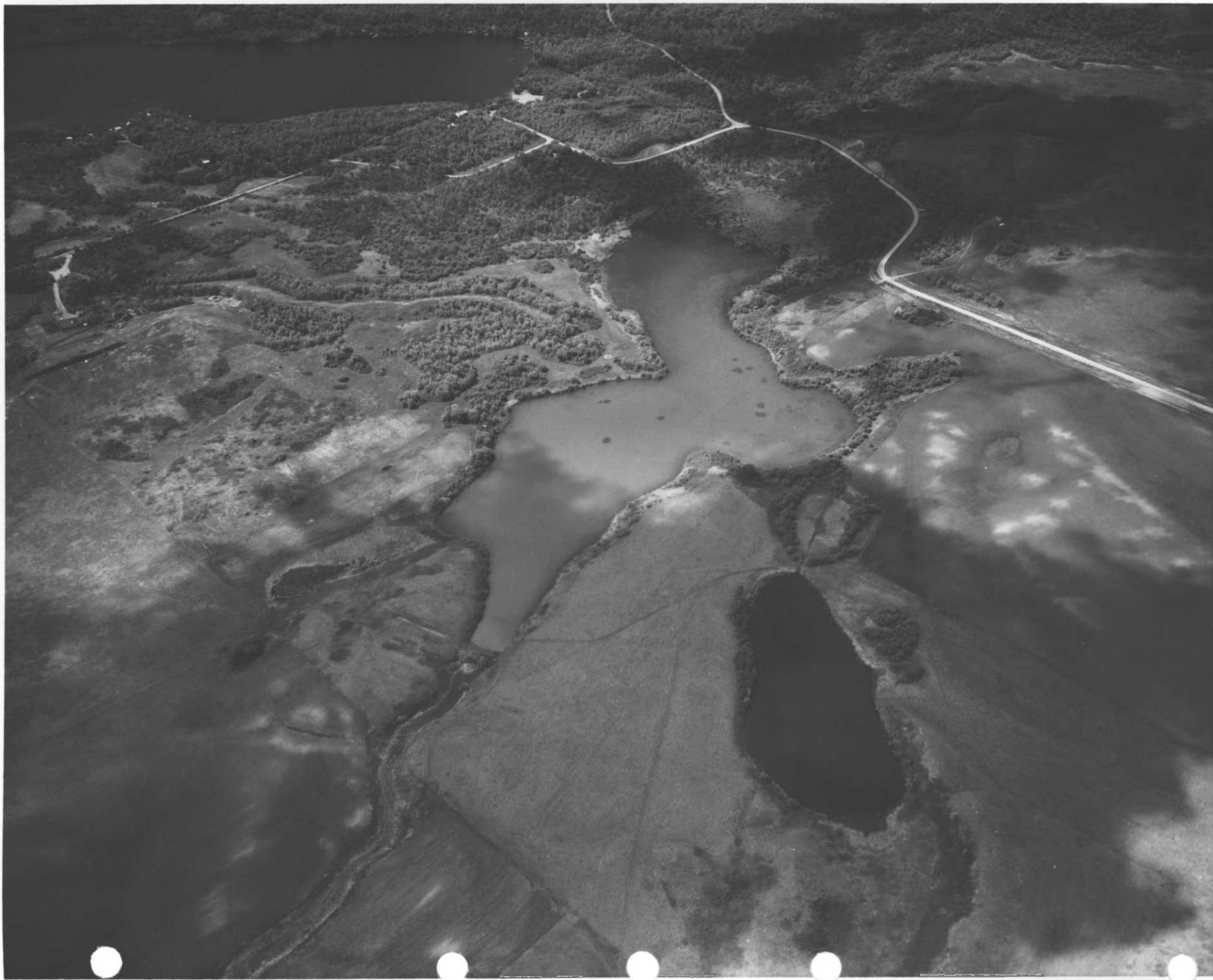


APR 12 1966

001272

Lake Alice outlet channel to Lake Irwin. Photo taken to N.E. Dashes are location of dike and control structure now under construction. When Lake Irwin is full, as in this photo, we have no control over maximum level in Lake Alice. Lake Irwin is not an easement refuge.

001271, 4/12/66, Winship



Wood Lake Marsh NWR (Easement). Wood Lake proper in background.

001180, 6/9/66, Winship



JUN 9 1966

001174

Sibley Lake NWR (Easement), 70+ miles southeast of Sullys
Hill. Photo east to west.

001174, 6/9/66, Winship



JUN 9 1966

001184

Pleasant Lake NWR (Easement), 60 miles N.W. of Sullys
Hill, near Rugby.

00118~~4~~, 6/9/66, Winship